

# ABB BALDOR RELIANCE III

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## Customer information packet

### EJMM2515T-G

48M 4P OPSB HOR 256JM SE

Class - None

Division - Not Applicable

**Specifications**

|                                       |                                                                |
|---------------------------------------|----------------------------------------------------------------|
| <b>Enclosure</b>                      | OPSB                                                           |
| <b>Frame</b>                          | 256JM                                                          |
| <b>Frame Material</b>                 | Steel                                                          |
| <b>Frequency</b>                      | 60.00 Hz                                                       |
| <b>Haz Area Class and Group</b>       | None                                                           |
| <b>Haz Area Division</b>              | Not Applicable                                                 |
| <b>Motor Letter Type</b>              | Three Phase                                                    |
| <b>Output @ Frequency</b>             | 20.000 HP @ 60 HZ                                              |
| <b>Phase</b>                          | 3                                                              |
| <b>Synchronous Speed @ Frequency</b>  | 1800 RPM @ 60 HZ                                               |
| <b>Voltage @ Frequency</b>            | 230.0 V @ 60 HZ<br>460.0 V @ 60 HZ                             |
| <b>Agency Approvals</b>               | CSA<br>CSA EEV<br>NEMA PREMIUM<br>UR                           |
| <b>Ambient Temperature</b>            | 40 °C                                                          |
| <b>Auxiliary Box</b>                  | NO AUXILLARY BOX                                               |
| <b>Auxiliary Box Lead Termination</b> | None                                                           |
| <b>Base Indicator</b>                 | Rigid                                                          |
| <b>Bearing Grease Type</b>            | Polyrex EM (-20F +300F)                                        |
| <b>Blower</b>                         | None                                                           |
| <b>Current @ Voltage</b>              | 52.000 A @ 208.0 V<br>48.000 A @ 230.0 V<br>24.000 A @ 460.0 V |
| <b>Design Code</b>                    | A                                                              |
| <b>Drip Cover</b>                     | No Drip Cover                                                  |
| <b>Duty Rating</b>                    | CONT                                                           |
| <b>Efficiency @ 100% Load</b>         | 93.0 %                                                         |
| <b>Electrically Isolated Bearing</b>  | Not Electrically Isolated                                      |
| <b>Feedback Device</b>                | NO FEEDBACK                                                    |
| <b>Front Shaft Indicator</b>          | None                                                           |

**Part Detail**

|                     |            |
|---------------------|------------|
| <b>Revision</b>     | L          |
| <b>Type</b>         | AC         |
| <b>Mech. spec.</b>  | 39E447     |
| <b>Base</b>         |            |
| <b>Status</b>       | PRD/A      |
| <b>Elec. spec.</b>  | 39WGX952   |
| <b>Layout</b>       | 39LYE447   |
| <b>Eff. date</b>    | 12-11-2025 |
| <b>CD Diagram</b>   | CD0180     |
| <b>Poles</b>        | 04         |
| <b>Leads</b>        | 9#10       |
| <b>Proprietary</b>  | False      |
| <b>Created date</b> | 04-03-2019 |

|                               |                       |
|-------------------------------|-----------------------|
| Heater Indicator              | No Heater             |
| High Voltage Full Load Amps   | 24.0 a                |
| Insulation Class              | F                     |
| Inverter Code                 | Inverter Ready        |
| IP Rating                     | IP23                  |
| KVA Code                      | G                     |
| Lifting Lugs                  | Standard Lifting Lugs |
| Locked Bearing Indicator      | Locked Bearing        |
| Motor Lead Quantity/Wire Size | 9 @ 10 AWG            |
| Motor Lead Termination        | Flying Leads          |
| Motor Standards               | NEMA                  |
| Motor Type                    | 3948M                 |
| Mounting Arrangement          | F1                    |
| Number of Poles               | 4                     |
| Overall Length                | 24.69 IN              |
| Power Factor                  | 85                    |
| Product Family                | General Purpose       |
| Pulley End Bearing Type       | Ball                  |
| Pulley Face Code              | C-Face                |
| Pulley Shaft Indicator        | Tapped & Key          |
| Rodent Screen                 | Included              |
| Service Factor                | 1.15                  |
| Shaft Diameter                | 1.250 IN              |
| Shaft Ground Indicator        | Shaft Grounding       |
| Shaft Rotation                | Reversible            |
| Shaft Slinger Indicator       | Shaft Slinger         |
| Speed                         | 1765 rpm              |
| Speed Code                    | Single Speed          |
| Starting Method               | Direct on line        |
| Thermal Device - Winding      | None                  |
| Vibration Sensor Indicator    | No Vibration Sensor   |
| Winding Thermal 1             | None                  |
| Winding Thermal 2             | None                  |

**Nameplate**

| NP3554LUA |                           |        |                         |              |                           |       |       |    |         |        |            |      |
|-----------|---------------------------|--------|-------------------------|--------------|---------------------------|-------|-------|----|---------|--------|------------|------|
| CAT.NO.   | EJMM2515T-G               |        |                         |              | P/N                       |       |       |    |         |        | ENCL       | OPSE |
| SPEC.     | 39E447X952G1              |        | CC                      | 010A         |                           | FRAME | 256JM |    | SER.NO. |        |            |      |
| HP        | 20                        |        |                         | CLASS        |                           | H     | HZ    | 60 |         |        |            |      |
| RPM       | 1765                      |        |                         | PH           | 3                         | DES   |       | A  |         |        |            |      |
| VOLTS     | 230/460                   |        |                         |              | CODE                      |       | G     |    | ODE BRG | 6208   | DE BRG     | 6309 |
| AMPS      | 48/24                     |        |                         |              |                           |       |       |    |         |        |            |      |
| RATING    | 40C AMB-CONT              |        |                         | NEMA-NOM-EFF |                           |       |       | 93 |         | GREASE | POLYREX EM |      |
| PF        | 85                        | SER.F. | 1.15                    |              | CT30-60(2:1) VT3-60(20:1) |       |       |    |         |        |            |      |
| USABLE AT | 50HZ 20HP 190/380V 58/29A |        |                         |              |                           | SF1.0 |       |    |         |        |            |      |
| HTR-VOLTS | HTR-AMPS                  |        | MAX. SPACE HEATER TEMP. |              |                           |       |       |    |         |        |            |      |

**AC Induction Motor Performance Data**

Record # 57686

Typical performance - not guaranteed values

| Winding: 39WGX952-R003 |    |              | Type: 3948M                              |                           | Enclosure: OPSB       |           |           |
|------------------------|----|--------------|------------------------------------------|---------------------------|-----------------------|-----------|-----------|
|                        |    |              |                                          |                           |                       |           |           |
| Nameplate Data         |    |              | 460 V, 60 Hz:<br>High Voltage Connection |                           |                       |           |           |
| Rated Output (HP)      |    | 20           | Full Load Torque                         |                           | 59.7 LB-FT            |           |           |
| Volts                  |    | 230/460      | Start Configuration                      |                           | direct on line        |           |           |
| Full Load Amps         |    | 48/24        | Breakdown Torque                         |                           | 187 LB-FT             |           |           |
| R.P.M.                 |    | 1765         | Pull-up Torque                           |                           | 78.1 LB-FT            |           |           |
| Hz                     | 60 | Phase        | 3                                        | Locked-rotor Torque       |                       | 112 LB-FT |           |
| NEMA Design Code       |    | A            | KVA Code                                 | G                         | Starting Current      |           | 156 A     |
| Service Factor (S.F.)  |    | 1.15         |                                          | No-load Current           |                       | 8.83 A    |           |
| NEMA Nom. Eff.         |    | 93           | Power Factor                             | 85                        | Line-line Res. @ 25°C |           | 0.48438 Ω |
| Rating - Duty          |    | 40C AMB-CONT |                                          | Temp. Rise @ Rated Load   |                       | 37°C      |           |
| S.F. Amps              |    |              |                                          | Temp. Rise @ S.F. Load    |                       | 46°C      |           |
|                        |    |              |                                          | Locked-rotor Power Factor |                       | 33.3      |           |

**Load Characteristics 460 V, 60 Hz, 20 HP**

| % of Rated Load | 25     | 50     | 75     | 100    | 125    | 150    | S.F. |
|-----------------|--------|--------|--------|--------|--------|--------|------|
| Power Factor    | 50     | 72     | 81     | 85     | 87     | 87     | 86   |
| Efficiency      | 90.2   | 93.3   | 93.5   | 93     | 92.2   | 91     | 92.5 |
| Speed           | 1792.2 | 1784.8 | 1776.1 | 1767.5 | 1757.6 | 1746.3 | 1762 |
| Line amperes    | 10.5   | 14     | 18.6   | 23.8   | 29.4   | 35.6   | 27.2 |

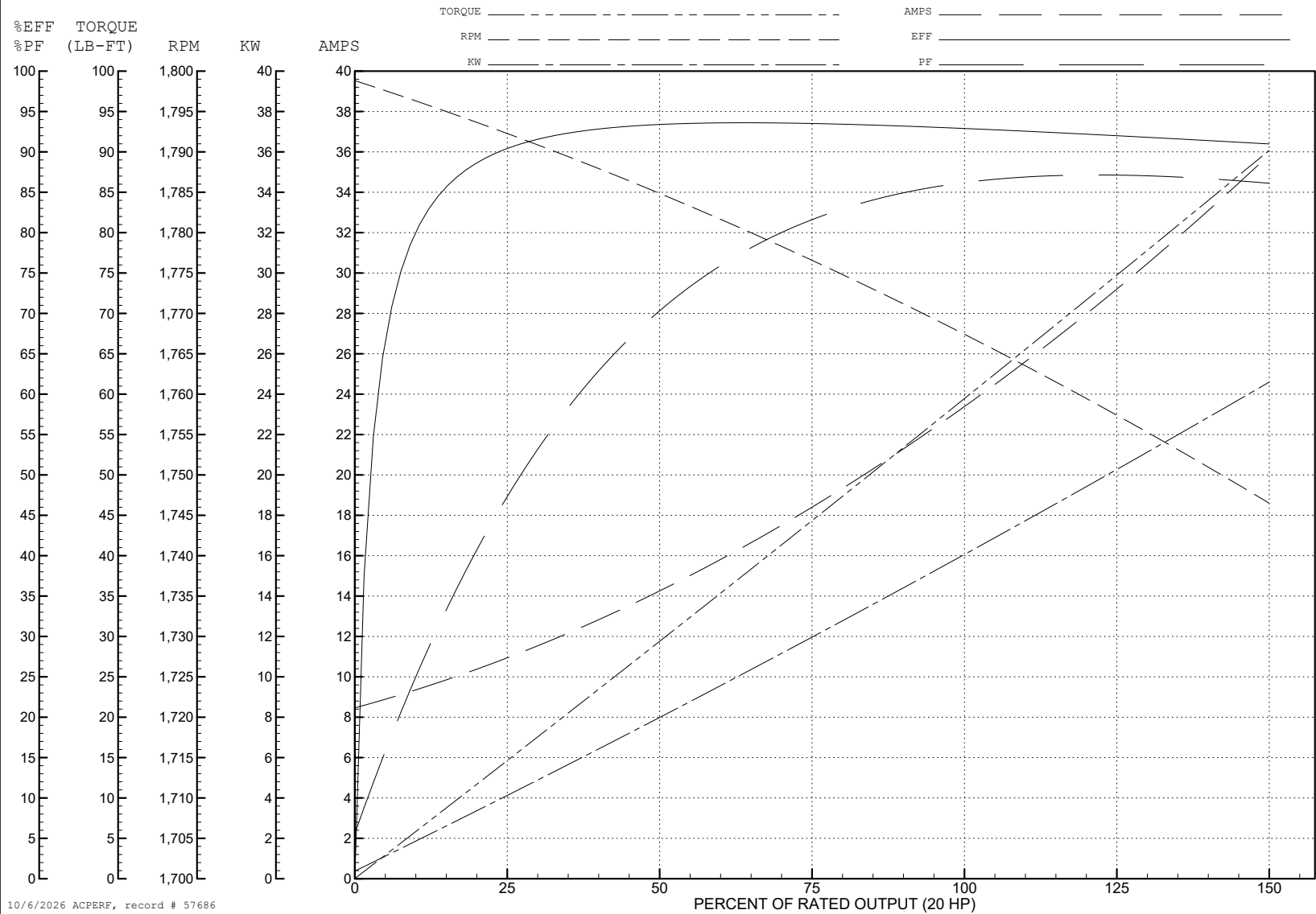
ABB Motors and Mechanical Inc.

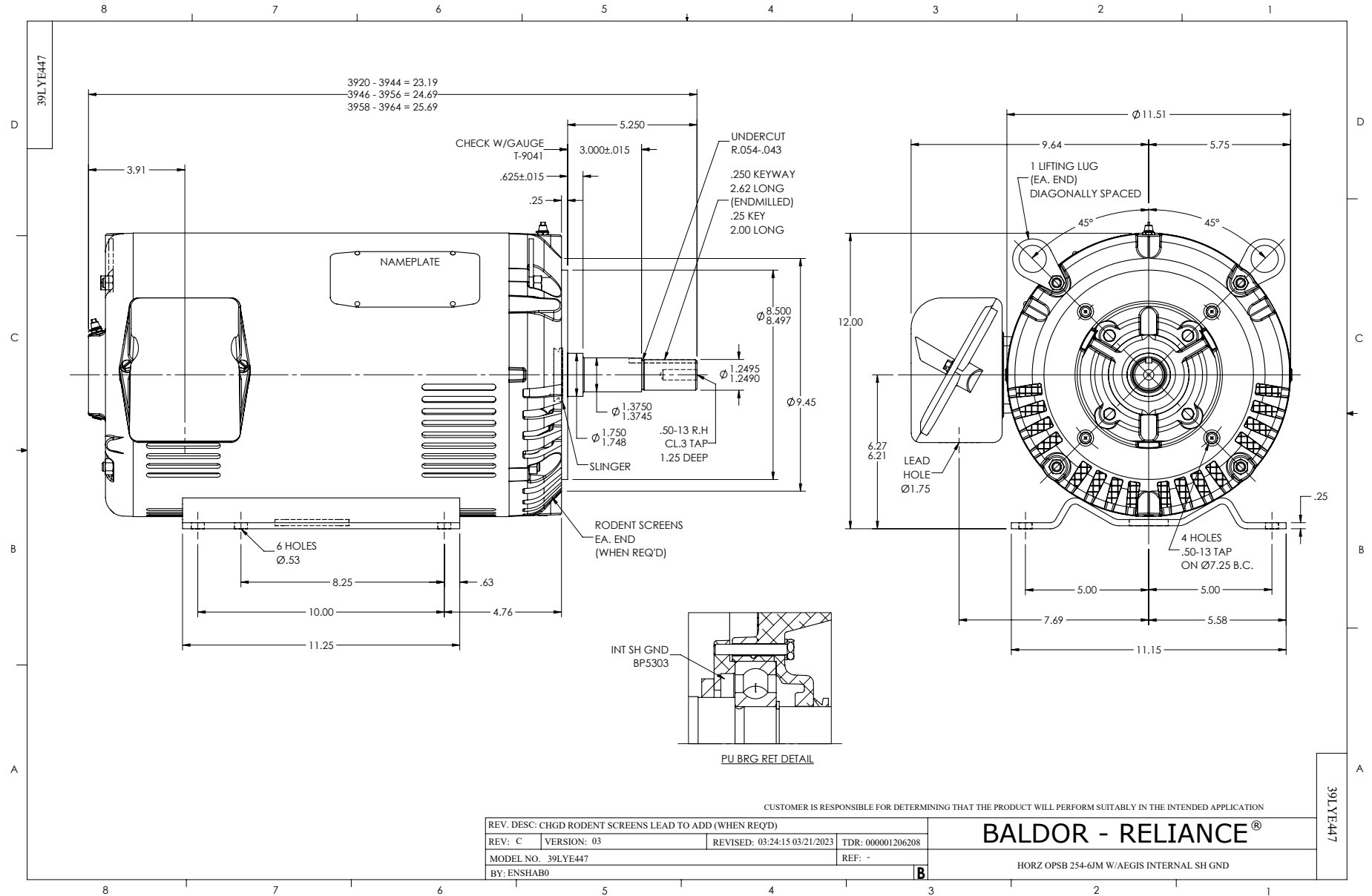
WINDING # 39WGX952

Typical performance - not guaranteed values.

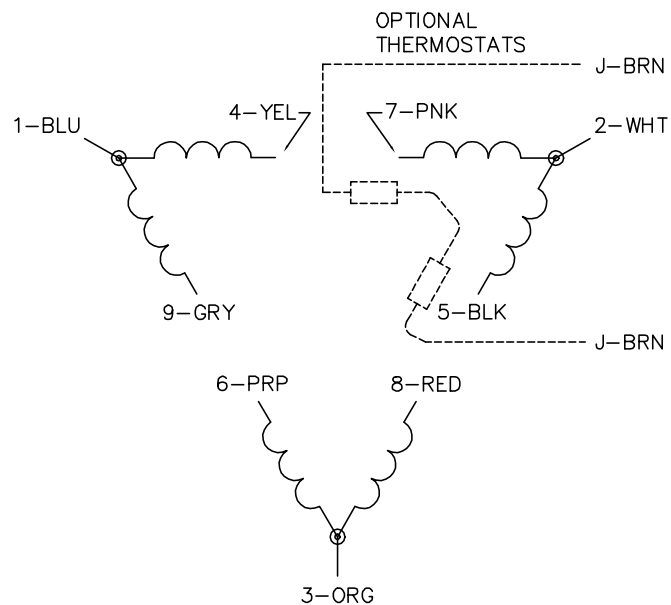
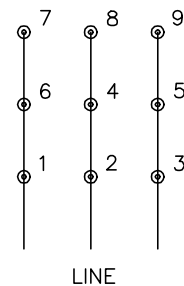
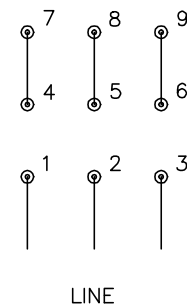
20 HP 3 PH 60 HZ 1765 RPM 460 V 3948M

TORQUES (LB-FT): PO=187 PU=78.1 LR=112 LRA=156





CD0180


LOW VOLTAGE  
(2D)

HIGH VOLTAGE  
(1D)

**NOTES:**

1. INTERCHANGE ANY TWO LINE LEADS TO REVERSE ROTATION.
2. OPTIONAL THERMOSTATS ARE PROVIDED WHEN SPECIFIED.
3. ACTUAL NUMBER OF INTERNAL PARALLEL CIRCUITS MAY BE A MULTIPLE OF THOSE SHOWN ABOVE.
4. LEAD COLORS ARE OPTIONAL. LEADS MUST ALWAYS BE NUMBERED AS SHOWN.

REV. DESC: ADD CLASS CONN00000007

REV. LTR: D

VERSION: 01

TDR: 000001099922

FILE: \AAA\00005\148

REVISED: 10: 25: 29 02/19/2019

BY: ENBRIRO

MTL: -


**BALDOR - RELIANCE®**

3PH, DV, 9 LEADS, DELTA CONNECTION

SH 1 of 1

CD0180